

Neemopteryx

No.
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Remarks No 17

Samuel Wilson of Ph'a.
Passed March 6th. 1823

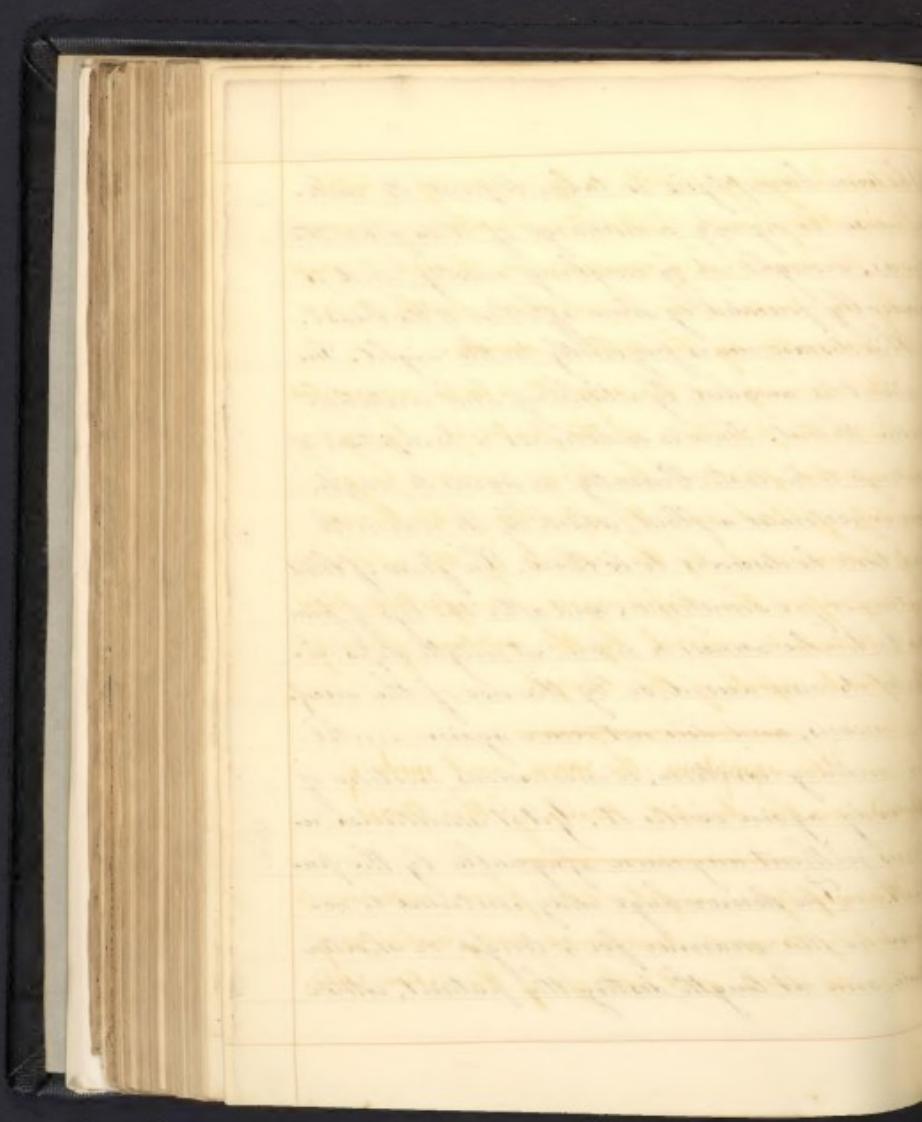
Wilson

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Remarks on Haemoptysis.

Of the various diseases to which man is liable, none have excited a greater interest in medical practitioners, or proved more generally fatal to their subjects, than affections of the pulmonary system.

Computations have been made of the number of persons who annually fall victims to these maladies. In the British islands more than one fifteenth of the whole population, is year after year, swept away by the desolating scourge of consumption. In our own country also, a vast proportion of the mortality thus obtains in open defiance of medical arrestation. Nor is it less true, that it is too generally in youth, and under the fairest prospects of long and useful and happy life, that this disease marks its objects, begins its fatal work, saps the foundation of the constitution, and advancing with silence has secured its fortress, from whence it can



never be removed. Whether it proceed by rapid or tardy steps, the certainty of its issue is generally contemporaneous with that of its discrimination.

If it be true that Phthisis pulmonalis in its decisive character with inveterate symptoms, is incurable, medical scrutiny must be chiefly important in efforts to ascertain its various causes, those diseases which are its usual precursors, the employments, habits of life, or constitutional peculiarities, which predispose to it, or prepare its way, and those almost latent symptoms, which from their slightness, and indecisive character are liable to pass unnoticed, but which by early attention, may be prevented from increase and a fatal termination.

Among the causes immediate or intermediate of pulmonary consumption, Haemoptysis is by no means uncommon, and to the consideration of this disease, the pages of the following dissertation will be devoted.

The term haemoptysis is taken beyond its radical sense to signify a discharge of blood from the lungs, brought up by coughing mostly, and is generally preceded by some affection of the breast.

This disease occurs frequently in the night. The patient is awaked by a tickling and irritation in the throat. There is sometimes a perception of saltness to his taste. Presently he begins to cough, and expectorates a fluid, which by its warmth and taste he discovers to be blood. The flow of blood continues for sometime; and after the loss of from one to twelve ounces or more, at length stops, either of its own accord, or by the use of the necessary means, and does not occur again, until an necessary exertion, or unconscious motion of the body again excites it. Yet it sometimes returns without any cause assignable by the patient. The hemorrhage may continue to return in this manner for a longer or shorter time, and at length destroy the patient, either

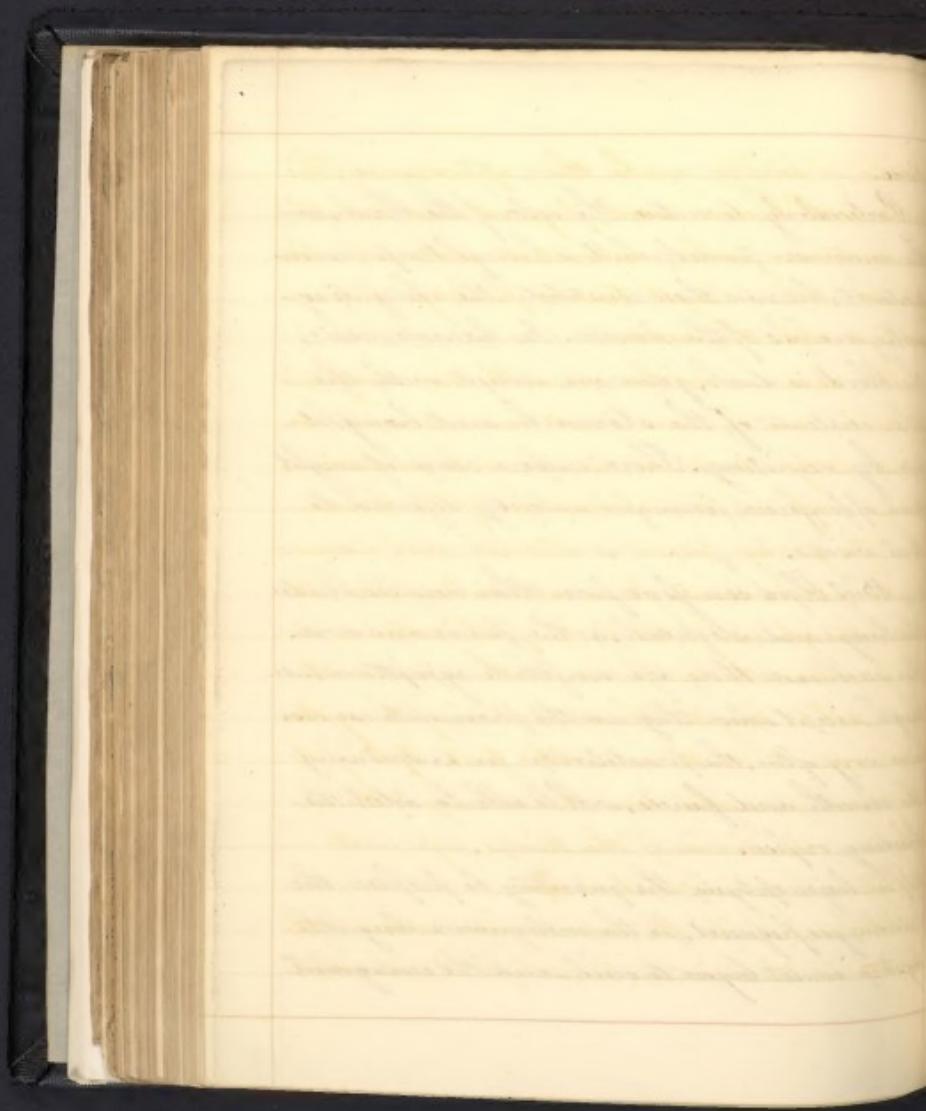
mettig van den drie deel en vijfde voor
dag dat ghevonden was anderdaer en verhoort
wordt dat de domineen de drie deel
en vijfde voor dag van de vijfde tot de negende
dag werden en vijfde tot de drieen gevoerd en
wel op een goede dag. Daerop gheven wel
verhoort word dat ghevonden was een anderdaer
dag tot drieen waren drieen verhoert word dat
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wel op een goede dag. Daerop gheven wel
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by absolute loss of blood, or by inducing a fatal phthisis. The former of these terminations of haemoptysis however is very uncommon, though it occasionally happens; when it produces death, it is most generally by the latter course.

Its occurring in the night is to be accounted for from the position of the patient. Lying in a horizontal posture, the lungs receive a large quantity of blood, and the capacity of the thorax being diminished by the contents of the abdomen pressing upon the diaphragm, a congestion takes place, which is relieved by the rupture of one of the delicate vessels of the lungs.

The symptoms, the causes, and mode of treatment are the divided heads of this thesis.

1. Haemoptysis, except when from violence, is preceded by languor, heaviness, and flushings of heat, or by chills, and coldness of the extremities.



Pain, a sense of fulness in the breast, and difficulty of breathing sometimes give warning of its approach. If the pulse be examined at this time, it is found in some cases to be full and strong, and often jerking under the fingers; in others, it is quick, loose and frequent. After these symptoms have continued for some time, or as is sometimes the case have not even existed, some irritation is felt, though it be not always an object of discrimination, in the larynx. This irritation hawking, or coughing, and blood is discharged, very often in small quantities, at the first; yet sometimes it is so profuse both by the mouth and nostril, that the patient may be thought in danger of suffocation.

The blood is fluid in most cases. Should it however ever be black and thick, if it is brought up by coughing alone, it still has proceeded from the lungs, and has assumed its appearance by having remained in the thorax, for a considerable

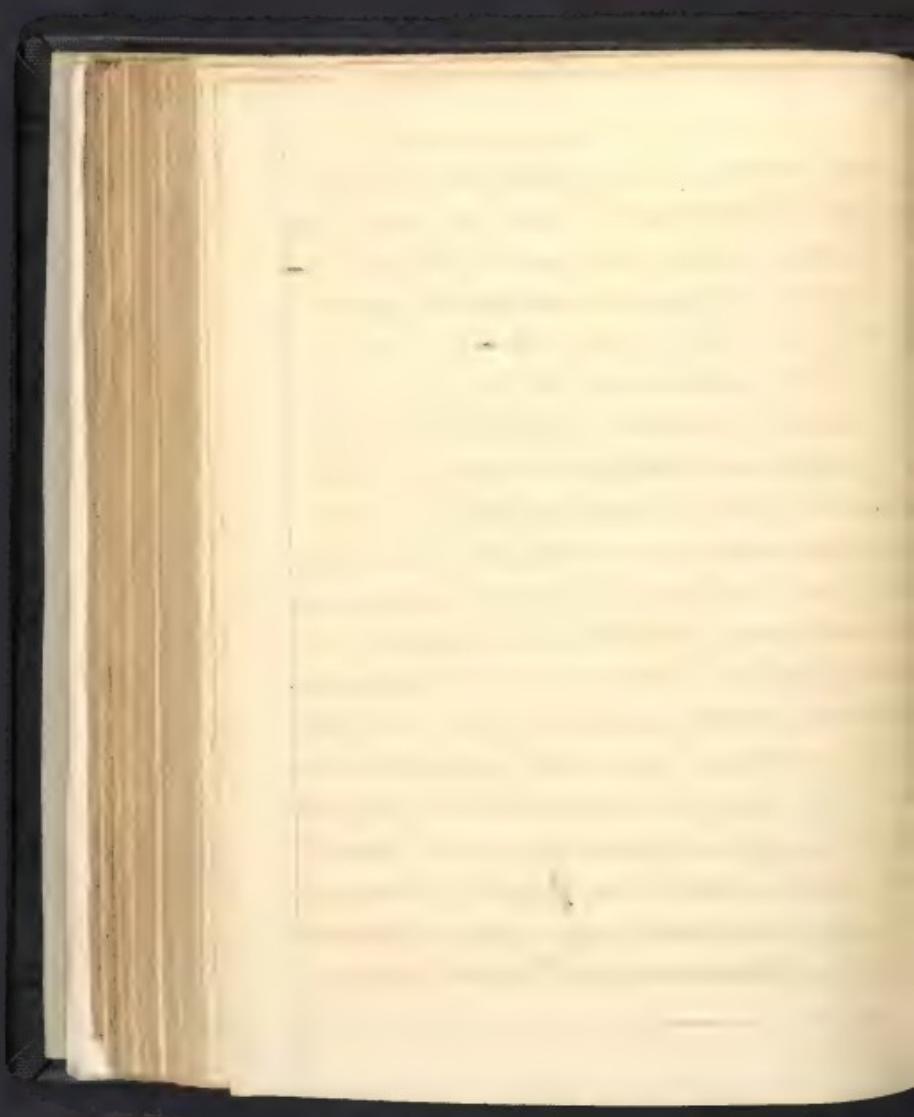


time.

Particularly to notice the color of the blood, and the manner in which it is brought up, is important; because these constitute the chief diagnostic marks of the disease. In haematemesis, the blood is dark, gamous, mixed with the other contents of the stomach, and brought up by vomiting. There is also a sense of weight and oppression, pain and anxiety, referred to that viscera.

But blood can issue from other sources, besides the lungs and stomach, as the fauces are one. In such case there are no febrile symptoms, nor cough, except where they are the proximate causes; and very often, the practitioner in examining the mouth and fauces, will be able to detect the bleeding orifice.

If in haemoptysis the quantity be profuse, the discharges frequent, or the continuance long, the system must begin to sink, and the consequent

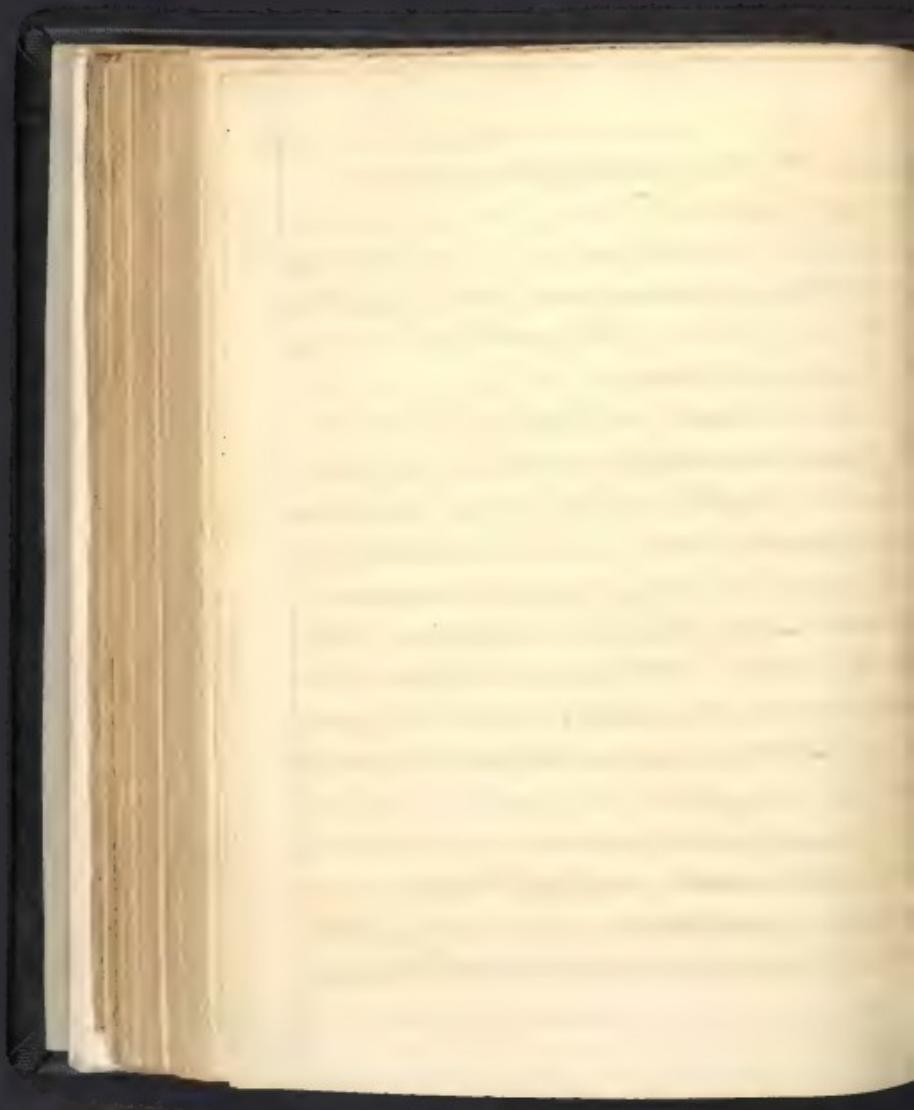


manns of debility make their appearance. The pulse will become weak, frequent and small, the countenance pasty, respiration more and more difficult till at length tremors, fitsings and convulsions close the scene.

This disease is neither generally nor necessarily fatal, and by some is not even esteemed dangerous, unless the person be disposed to putrefaction, or has an unfavorable conformation of the thorax.

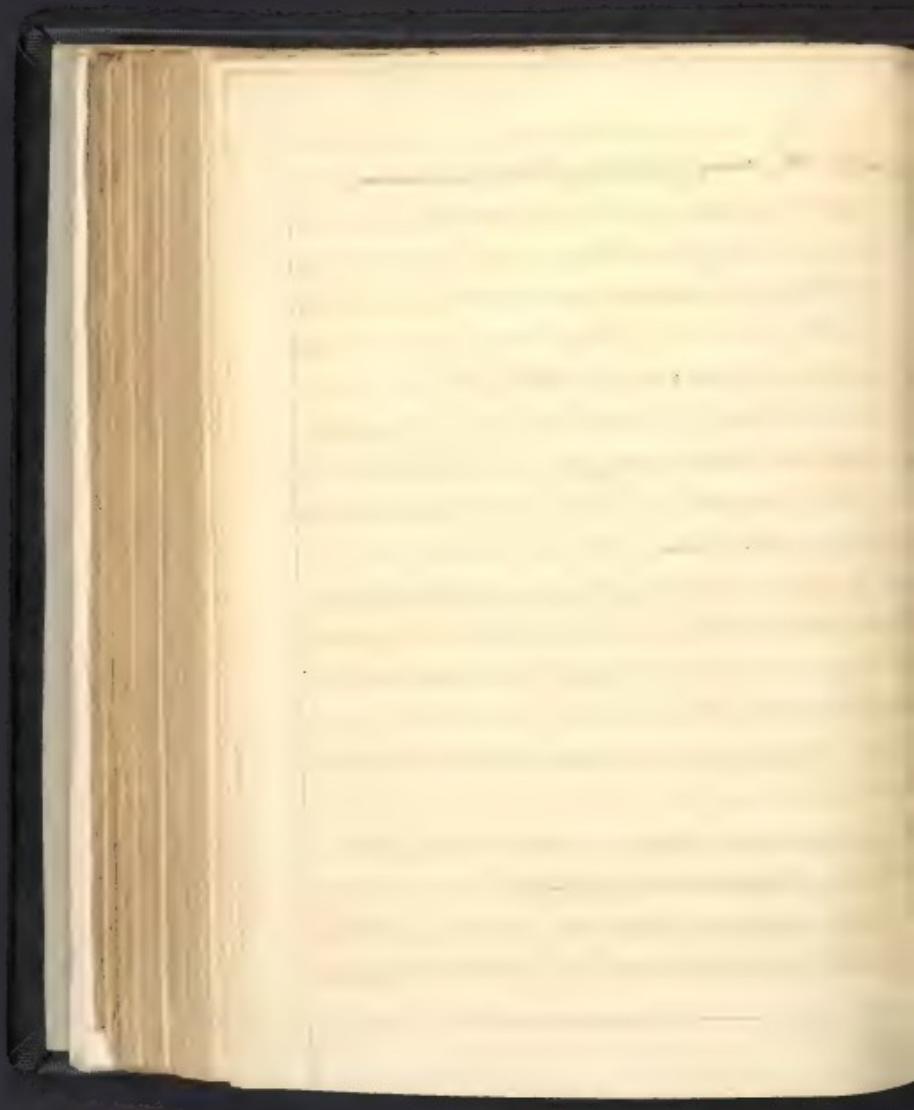
Yet if a young person is attacked with bronchitis not proceeding from external violence, it will, though not fatal in the first instance, evidently continue to harass him with repeated attacks till at length the concretion of the system shall open to death some other post. Yet if it may have proceeded from the debility of the internal membrane of the lungs, age will sometimes accomplish a cure.

With respect to the source from whence the fever and the malady in which it is dissolved



yet. There is now sufficient of precision. We have
out methods of explanation there has been professed.
The repudiation of some of the aspects of the theory -
the unobserved or untested observations - the
assault of an existing belief - and the
rejection of the aspects. { Other application is in
attempted derived evidence of unreliability from ex-
tent which would justify the rejection of the
theory, and such as, hearing testimony, numerous
contradictions on examination, and reasons either to ab-
andon that knowledge source, consider additional concur-
rent sources, and the like, if good ways.

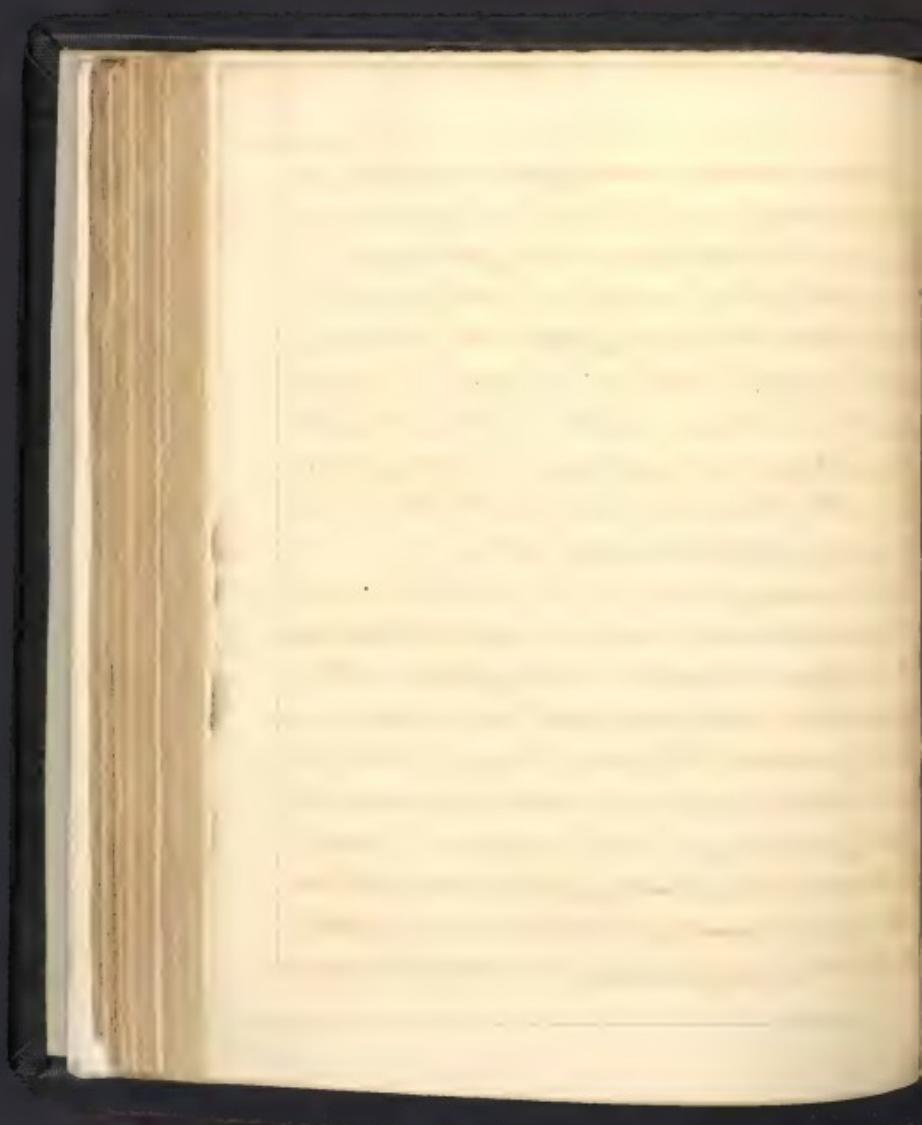
If from this, now a good reason for reaccepting it
is necessary, and preceded by evident conviction in its truth.
In a previous grouping, and in view of the last, a distinctive
quality may be present, justifying the result. That option
should be rejected by persons of low, here small
ability, at rest in bed, without any cushion or pillow
and reading course, under no pressure, it may with
some propriety be ascribed to the nocturnal openings,



"of the mouth & on running water, so as to allow
the passage of red blood."

This ulcerous bronchitis occurs in the latter stages of invasion or consumption of the lungs, it then proceeds from an erosion of the vessels by the spreading and extension of the ulcer.

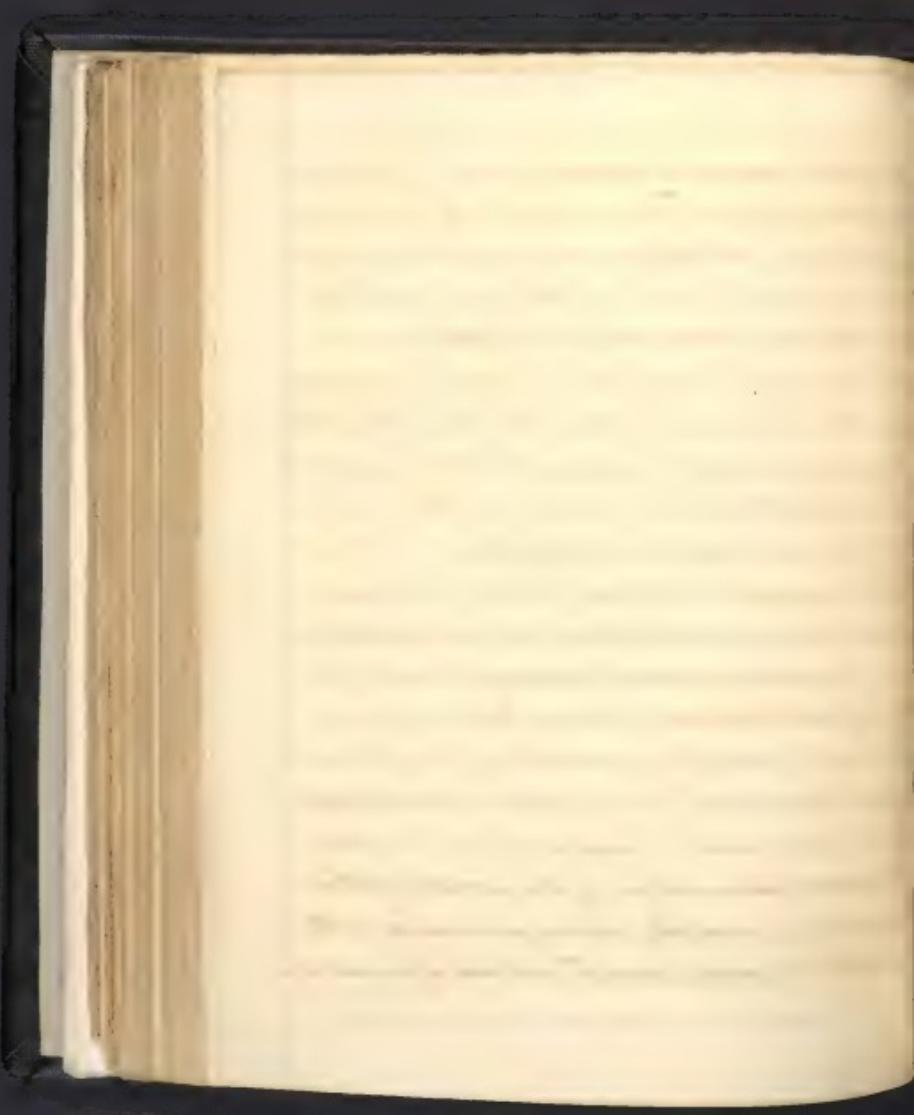
This disease attacks most frequently between the ages of fifteen and thirty, and those chiefly of sanguineous and plethoric habits, of narrow constituted chest and prominent shoulders. As similarity of person may be hereditary, and the same causes produce the same effects, this malady may be consequently inherited. Various causes may originate this disease at any season, but some always return with the spring months, which render it still most to be expected. Inhalation is a common precaution, and prudent preventive, in the commencement of warm weather, and ought to be had recourse to by persons of full habits, and especially by those who have been at any time subjected to this disease.



Of the causes of haemophlysis

The number & predisposing causes of this disease are
a narrow and depraved thorax with elevated scapulae,
a pectoral habit and sanguineous humours, want
a delicate and slender frame, a sedentary occupa-
tion, variety of life &c. A habit which in
this constitution incompatible may certainly
act as a cause predisposing to this disease.
most of the subjects of this disease are constitutio-
nally weak, whose constitutions have been overwrought by
disease, exposure, diet of sustenance, confinement
or sorrow. In such circumstances, the disease makes
its attack at the moment of greatest exhaustion or
prostration of strength, and often when the lungs are
least active, and the patient in a state of sleep entirely
unconscious.

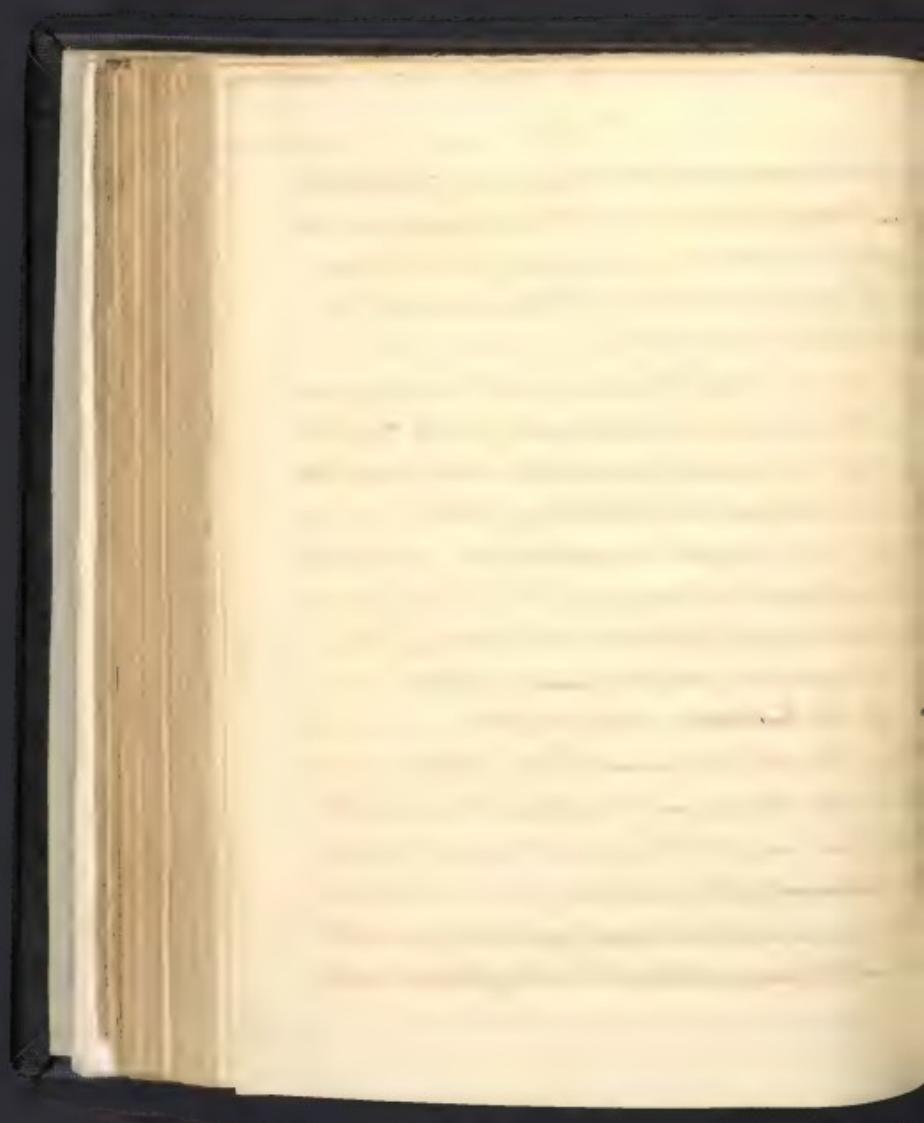
The superficies of natural ulcerations, as of the
hemorrhoidal flux, or of carbuncles, of eruptions; a rapid
growth of body, excessive excretion of urine, inactivity,
inflammatory infarction of the lungs, sudden exces-



ures to heat or cold, violent agitation, excessive fatigue, watching, and a febrile temperament are all causes more remote or proximate of this disease.

Running, jumping, wrestling, lifting heavy weights, stimulating perfumes, irregular living, over eating or drinking, and tightness of clothes should be cautiously avoided by those, who have reason to apprehend danger from haemoptysis.

The frequent recurrence of the disease, in the spring of the year when the weather first becomes suddenly warm, shows that an increase of temperature is the most prevalent exciting cause. Heat being a stimulant, exciting the vascular system; and at the same time the cutaneous surface not very relaxed; the intestinal organs become filled with blood, and the circulation increased, the vessels of the lungs which are large are unimpeded by any contracting power, and more delicate in their structure, than the arteries of other parts of the body are unable to sustain the augment



ted impetuous, and are scattered.

Dr. Cullen supposes heat removes the fluids more
than it recovers the solids, which had been more
contracted by the cold of winter, and for that
reason hemorrhages occur in the Spring.

Cold, though an opposite cause, by contracting the external surface of the body, is often mechanically produced this disease, and the cold bath or cold sheets are often followed by immediate haemorrhage.

These causes which act upon the lungs themselves are various. Loud or long speaking or singing, sudden bursts of laughter, coughing, catarrhs, inflammation and abscesses of the lungs, creating an atmosphere too much attenuated by elevation or rarefaction have produced hemorrhages from the lungs.

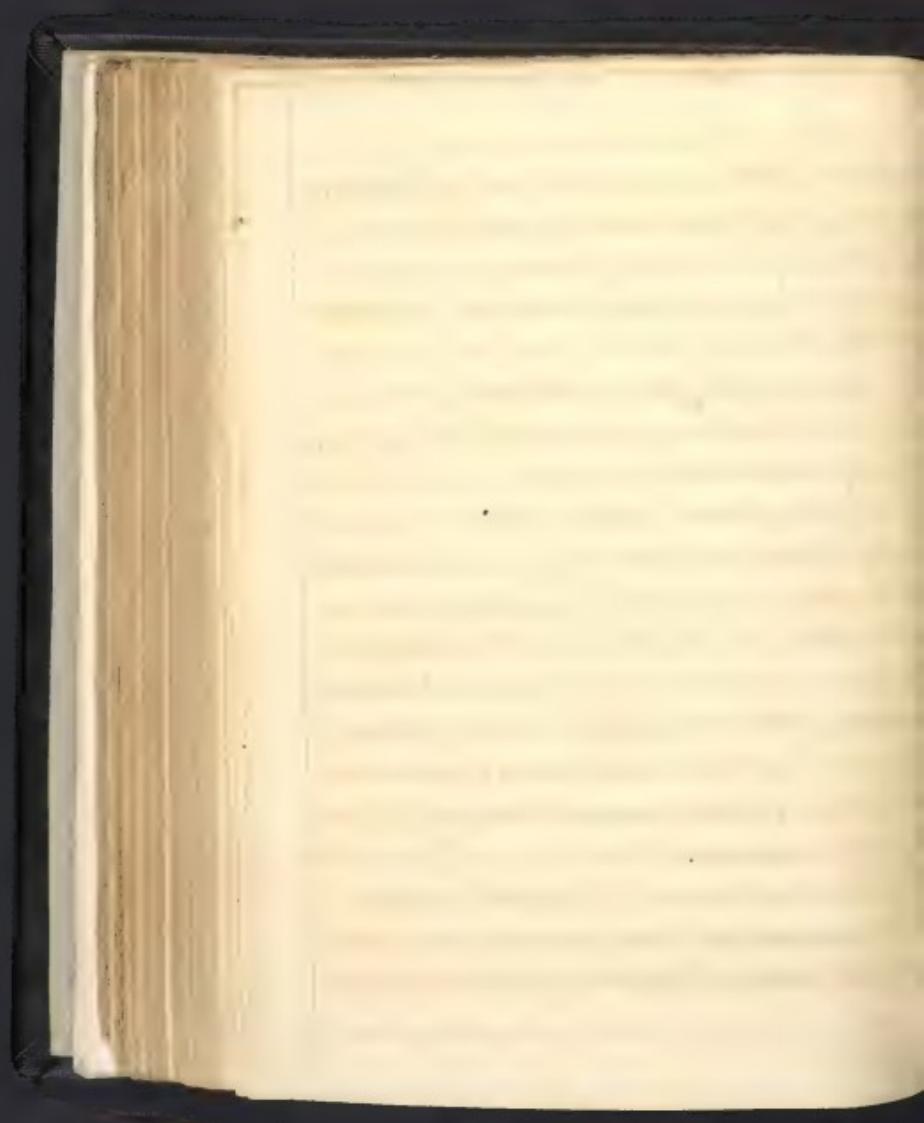
A sudden diminution of the weight of the atmosphere, especially when concurring with any effort in bodily exercise, has been assigned by



Dr Cullen as another exciting cause of haemoptysis. Excessive labour in climbing mountains might put the strongest lungs to a test sufficiently severe; but the difference of weight of atmosphere in ascending the highest mountains has not been proved by facts to have produced this disease. And Cavalli in his Elements of natural philosophy, remarks that aeronauts "seldom ~~sobolesse~~ speak of having felt any uneasiness with respect to respiration, or other animal function"; yet some of them have ascended to the height of sixteen thousand feet.

III. Of the treatment of haemoptysis

Here Venesection is undoubtedly the first remedy in importance, and to extract there should be the first resort. The practitioner should not be deterred by the fear of excessive exhaustion, and suppose that by drawing blood from the arm, at the same time that the effusion is go-



ing on from the lungs, he may return undiminished
his patient, and conspire with the disease which
he seems to counteract, by increasing the calamitous
effect, if a violent, spiritual let the life which he
visits to perishing.

This remedy is effectual in arresting the hemorrhage, not merely by diminishing the excess of
quantity, but by changing the determination of
blood to the lungs, and establishing another circu-
lal, the flux of which is so under our control,
as to be stopped at our pleasure. A profuse and
vicious bleeding by its powerful sedative effect
upon the system, even to syncope in some instan-
ces, may at the same time stay the hemorrhage,
and afford to the bleeding vessel an opportunity to
revert by its own elasticity, and by the removal of
that distending impulse which might periling
the disease or render it fatal.

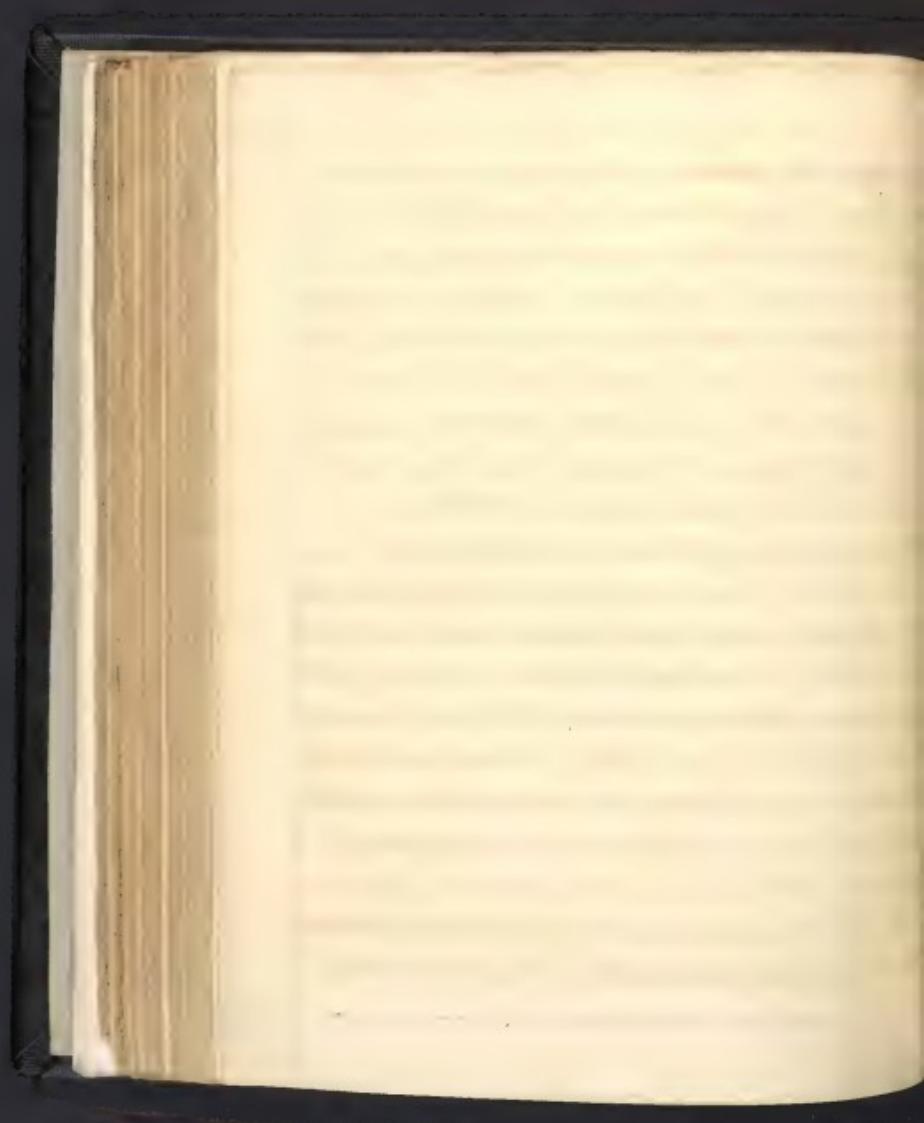
But there is an advantage possibly consequent
upon concretion, of the highest consideration. In



this disease, if the wound do not close by the first intention, great danger exists of inflammation, suppuration, and eventually ulceration and consumption. To prevent such results, the use of the lancet appears indispensable, and the primary barrier against the effects of that phlogistic disease, which, when it prevails in the system, is liable to produce the most serious consequences.

So official, not inf. than twelve or sixteen ounces of blood, must be taken from an adult, and the bleeding repeated if necessary. A large eviue is advisable, except where the remedy is merely preventive, or debility great. Dr. Smith, president of Princeton College, in an attack of haemoptysis was bled to the amount of one hundred and ninety two ounces, in ten days; and completely recovered.

There are cases however, in which venesection must be continually used, deferred or even omitted; but the debility must be extreme, or the loss



of blood in excessive quantity, to justify a diapa-
sing with so important a remedy. The state of
the pulse well be a better criterion than the
visible external means of prostration of strength.
But if the pulse has become very weak and flat-
tering, recourse should be had to other means of
arresting the hemorrhage or preventing its return.

The chloride of sodium or common salt stands
first in order of other remedies, both on account
of its great utility, and its being always at hand.
For the introduction of this important remedy,
the profession is indebted to Dr. Rush; who ac-
knowledges he received it from an old woman.
His mode of administering it was to give a
tablespoonful of fine salt in the commence-
ment of the hemorrhage, and repeat it if nec-
essary. If its action depends as he supposes it
does upon the stimulus it imparts to the -
throat, and which is thence extended to the
lungs, giving tone to the bleeding vessels, and

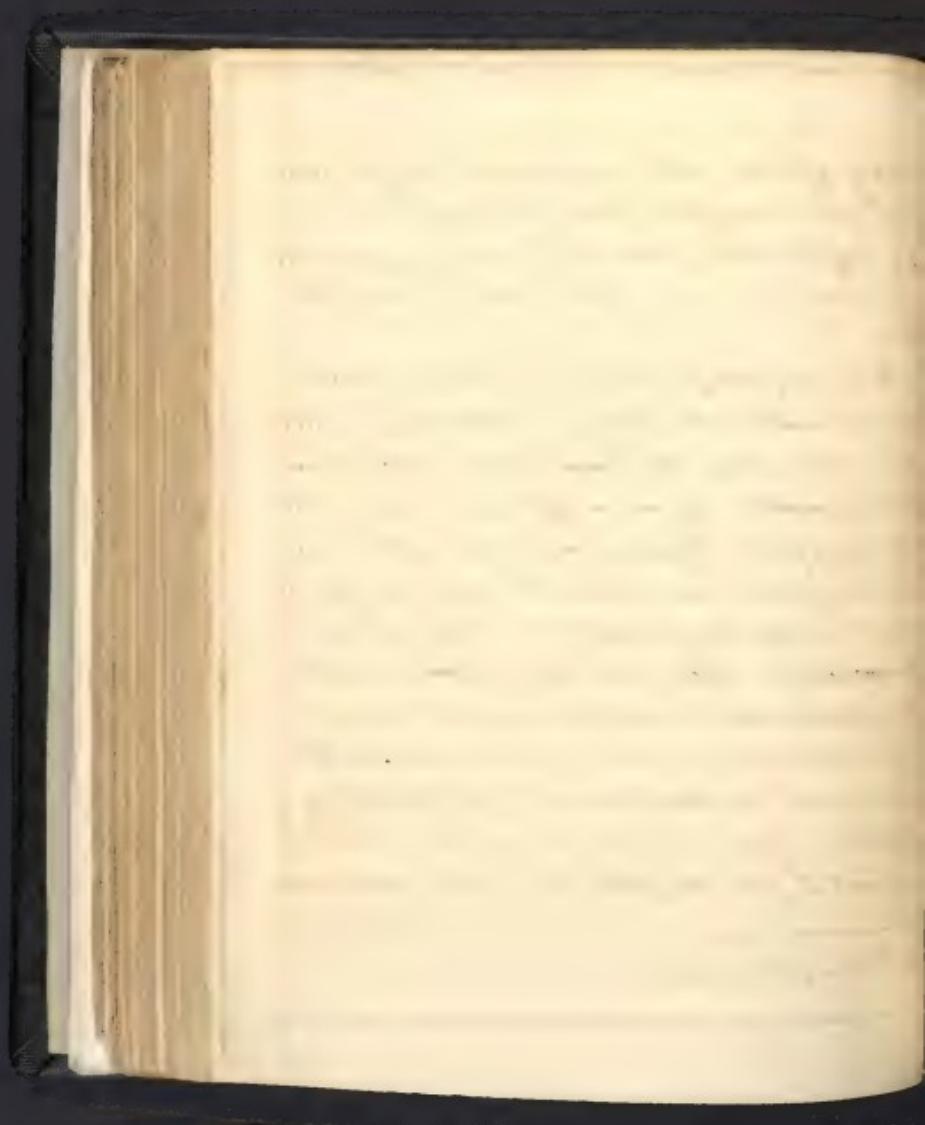


Reaching the effusion of the wind, it would certainly be a preferable mode of exciting it, to place a sum of salt upon the tongue, and allow it as it digests gradually to pass down the fauces, and throat, by which method its full effect would be increased. A tea-spoonful is often more than a stomach can bear, and a very quantity does not regurgitate taken, mixed with a little water, & equal alumine.

Salt generally effectual in rheumatism in cold or young persons, or an active or impulsive wind.

Cold applied to the body has been thought to have been of great utility, and as never to be omitted. It has been applied to the whole, and to parts of the body. Cloths wet with cold water or vinegar and water, are placed upon the thorax, & in the arm, & it has been supposed of essential service.

Dr Bond was once cured of a violent hemoptie by wrapping his naked body in a sheet

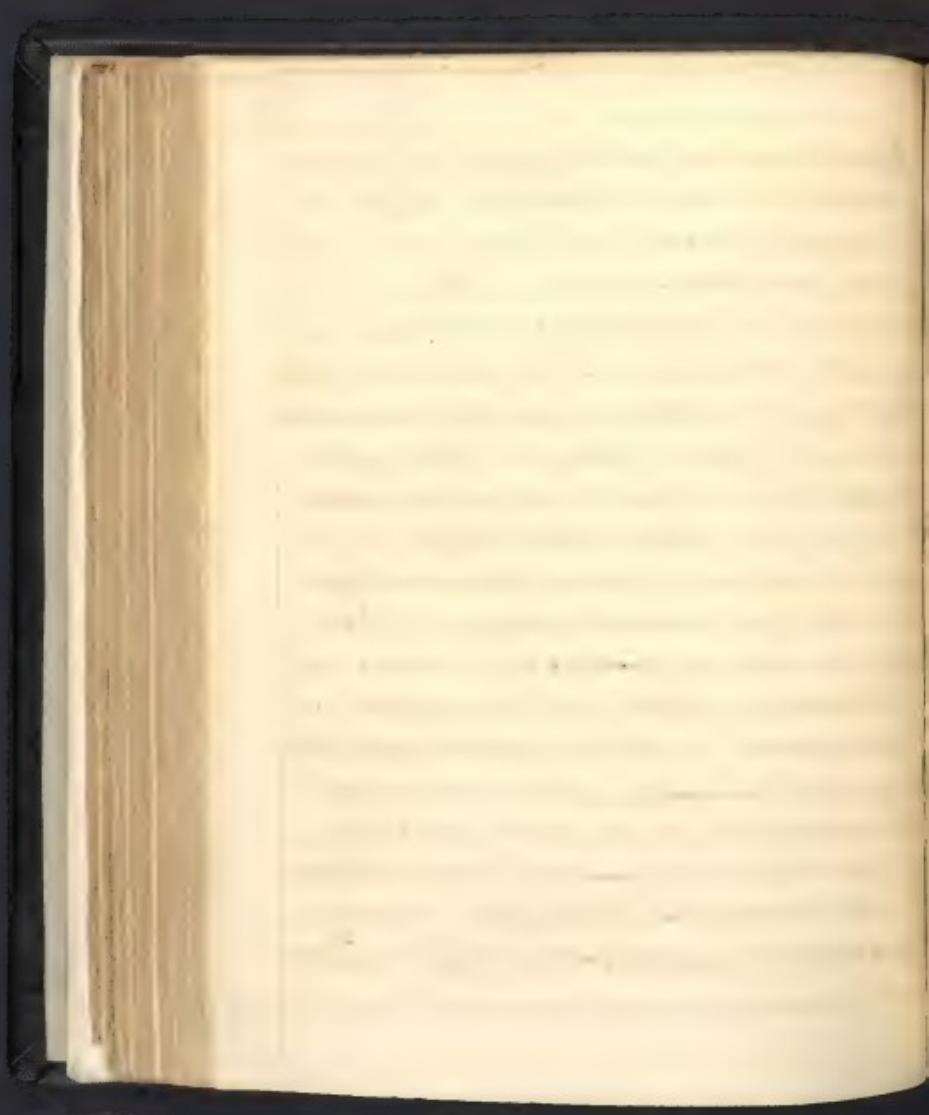


wring out of vinegar and water. Yet it is incontrovertible that the cold bath, and even the shock of a cold bed in winter, have in many instances relieved the disease. Dr. Loran advised the sponge-bath must be avoided on a sudden immersion of the body in a cold bath, or by striking cold water continually upon it. This such practice is certainly dangerous, as no report seems to be had recourse to, till every thing else has failed and death is almost inevitable. Such a nervous constriction of the surface of the body, and sudden shock given to the system will have the effect of exciting the brain, rather than causing it to be relaxed, hence, instead of diminishing increase the disease. For a person of a hysterical habit, magnetism, &c. &c., will in a state of excited action be subjected to the shock of the cold bath, must be a dangerous experiment at any time, but is much more to be dreaded, when the person is



slightly affected with a ruptured blood-vessel in a vital and inaccessible part of the body. Thirst can always be produced by such impressions, impressions which have before that been subjected to it.

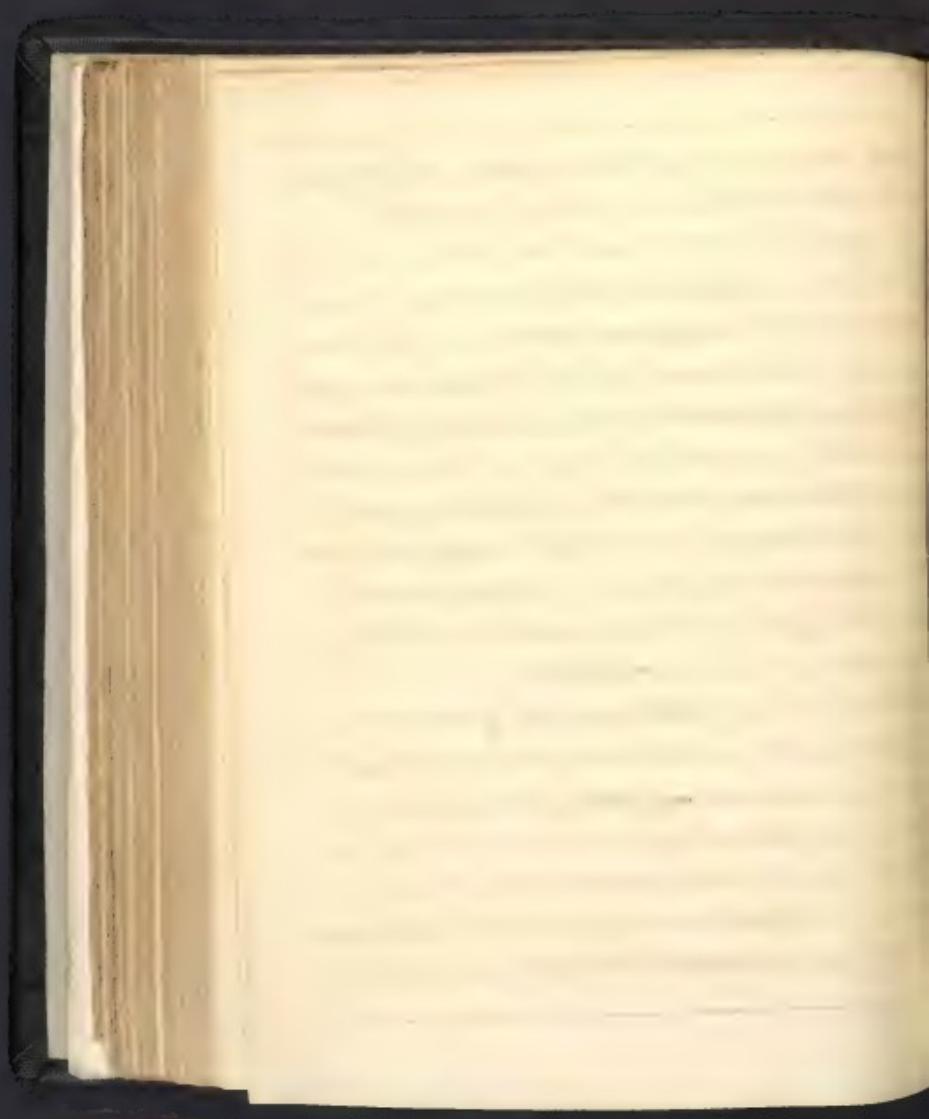
It would perhaps be less hazardous to administer cold water internally. A patient has in this disease been ordered to drink water reduced to a low temperature by means of ice, and the result was successful. A young man after other remedies had failed was directed to drink water reduced to a low temperature by means of ice, in the amount of a cup full every fifteen minutes. In a few hours the blood-sweating ceased, the fever and cough abated, and in a few days he recovered. This experiment nevertheless could be justified only by the failure of other remedies. In most cases, I will be sufficient to place the patient in a cool room, and



diminish the quantity of his cloths, so that he
may be comfortably cool, whilst his extremities
shall possess a proper temperature.

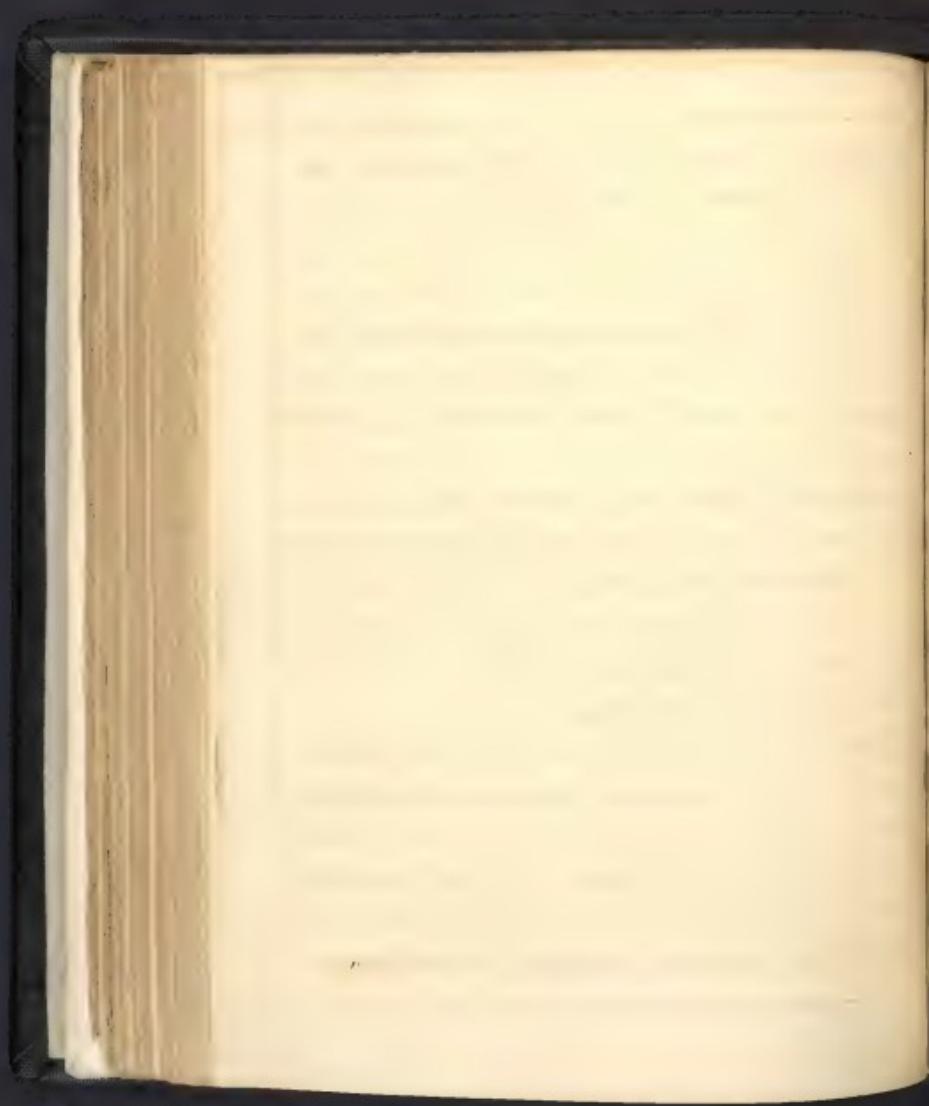
Fumes are recommended by Dr. Brown-Robin-
son as useful in arresting the swelling; and can
be used even in some cases with advantage but
does not recommend them. They may be removed
from other parts as quick, but in this, soon the
swells the skin will rise. No effort made in remov-
ing with their assistance etc. It ought to
be expected from their exhibition. These however
given in successive doses may be serviceable, and
at the same time safe. Dr. Bartlett injected a
concoction of ginseng and iucamminia. The
former and dangerous indeed by this compound
must be purgative in cases of violent hemorrhage,
and especially if intermixed with senna cayenne.

Small doses of laudanum followed by so much
sugar-latin of sictash, as shall keep the bowels open
are generally well & properly advised.



Vegetable and mineral astringents are occasionally adapted to the cure of this disease. The first are less frequently resorted to, the latter have become a general prescription. Of these the alum, the acetate of lead, the sulphates of zinc and copper are among the most valuable. The two first are most generally used in hemorrhages of every description. Alum is to be given in the quantity of eight or ten grains, and increased to much larger doses. But the sugar of lead is undoubtedly to be preferred in most cases of haemoptysis. Dr Keyssar used it and esteemed it highly. Dr Barton gave it in doses of six grains every two hours, and it produced no inconvenience. It can be given always copiously by copious emesis. After the energy of the circulation has been reduced, the lead may be given in doses of three grains every hour, combined with a quarter of a grain of chum.

The bowels are to be kept open by cooling purgatives; the sulphate of potash, or sulphate

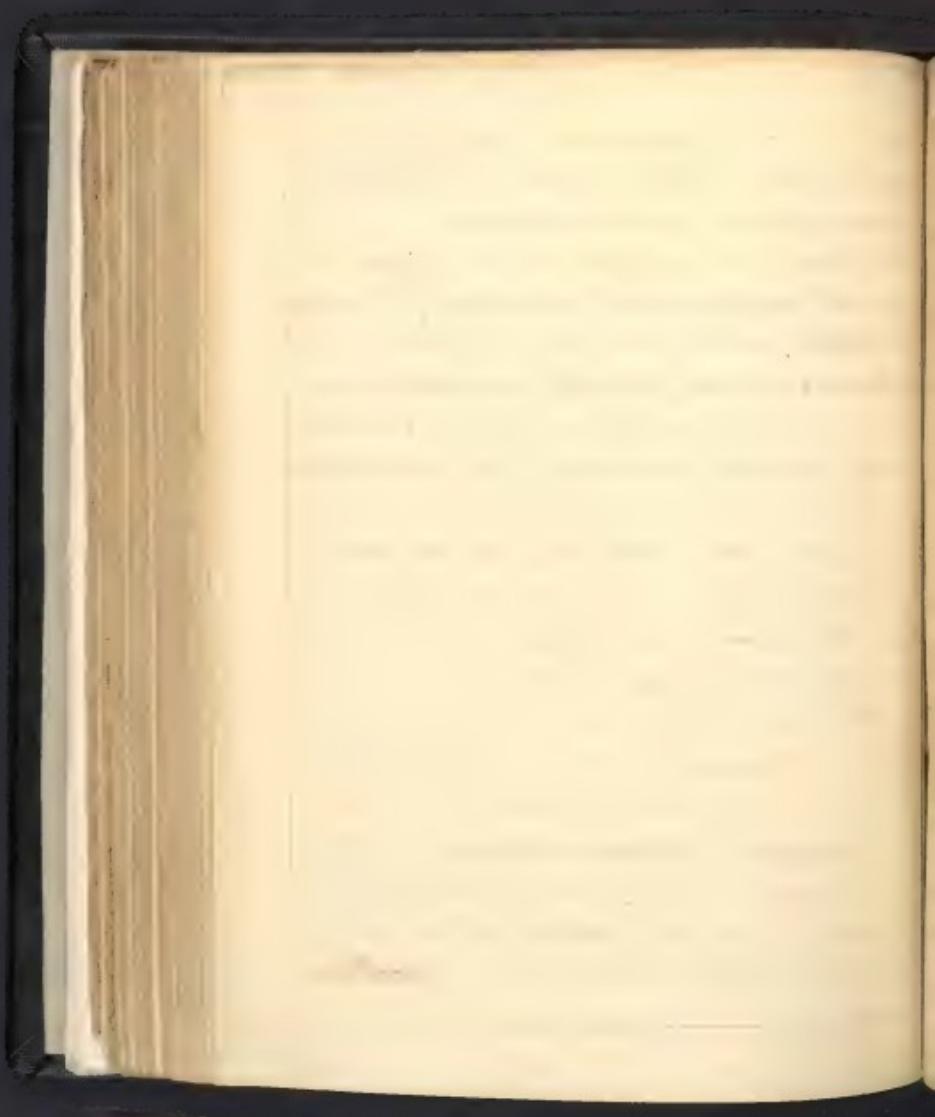


of soda may be used for this purpose, yet the spirit of the patient should be carefully preserved.

Cups applied to the breast are of service and help to prevent a consequent inflammation.

Blisters are also among our resources in the management of this disease. The rule laid down by the Professor of the practice and institutes of medicine, with regard to the period of their application, at the same time that it gives support to the importance of venesection as the first remedy, also assigns to them an "unquestionably serviceable office, after the necessary depilatory measures have been resorted to."

The beneficial effects may be explained on the principle in the animal economy, that a diseased action in any part of the body may be removed by securing a new and strong impression upon some remote part. A blister applied over the breast exciting vasodilation and producing determination to the external surface.



the thorax, remove the morbid action in the lungs, and assist in stopping hemorrhage.

The diet should not be stimulant, but light consisting of the farinaceous principally; the drinks should be cool and acidulous, such as the vegetable acids, or the elixir of citriol in sweetened water.

The habit should be preserved open for a long time, and blood taken from the arm, when there is the slightest symptom of a return of the disease. Above all the patient must avoid taking cold, nothing is so apt to produce a recurrence of the disease as a catarrh.

If the disease originated not from hereditary predisposition, or a faulty conformation of the pulmonary system, but from causes extrinsic and fortuitous, and if the blood be fluid and in small quantity, and not followed by pain and difficulty of breathing, or cough, convalescence

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800' S south adams

may be expected. But the worse of all these, presage an approaching consumption.

He who has been subjected to haemoptysis in his youth may receive in advanced life a change of constitution which shall prove a defence against this disease; but more generally, no precaution in diet, exercise, labour or enjoyments have preserved from the subsequent recurrence of this fatal malady. In the sunshine of prosperity, the moment of hilarity, or in the midst of business the most important, at home or abroad, awake or even asleep, the sluices of life are opened, and he is threatened with speedy dissolution.

See a few solitary instances, persons of this diathesis, by halting themselves low, have protracted their lives; perpetual valetudinarians, and unequal to any effort, they have sustained a burthen-some life, until sinking ^{into} infirmity, haemoptysis is one of its evengent diseases puts an end at once to their existence and their misery. Samuel Wilson.

